

## **REMARKS**

Claims 1, 6 and 18 are amended. It is noted with appreciation that the Examiner deems claims 6 and 18 to recite allowable subject matter. In accordance with the helpful suggestion of the Examiner, claims 6 and 18 are amended to incorporate the limitations of the base and intervening claims. To expedite prosecution, claims 3, 13 - 17 and 19 - 37 are canceled without prejudice in favor of filing the claims in a continuation application. Now in the case are claims 1- 12, 6, 18 and 38 - 41. Claims 1, 6, 18 and 38 are independent.

No new matter is added. Regarding claim 1, support is found throughout the specification, such as, for example, at paragraphs 28-31 of Applicant's application as published and in original claim 3.

### **Rejection of Claims**

#### **Independent Claim 1**

Claim 1 is amended to recite that the inwardly facing surface comprises "a helical groove for receiving a plurality of loops of a length of optical fiber."

In rejecting now canceled claim 3, which recited that the inwardly facing surface comprised a helical groove, the Office Action considered the claimed invention to be obvious over US Patent 5,838,858 to White ("White") in view of US Patent No. 6,424,784 to Olson ("Olson"). Applicant respectfully submits that claim 1 as amended is not rendered obvious by White in view of Olson. White, it is noted, at Figure 11 cited by the Examiner, shows no more than a jumble of different optical cables inside a housing designed to mount to a standard electrical box. (White, Abstract). Olson, in fact, teaches *away* from the invention as recited in claim 1, and merely follows the convention of winding an optical fiber around the outside of a spool or mandrel.

As noted in Applicant's published application at paragraph 3, and in more depth, at paragraph 49, it is well known in the prior art to wind an optical fiber about a tube or rod. In this instance the tube or rod receives the at least part of inner faces of the coils of optical fiber. In this prior art technique, any outward expansion of the tube or rod, such as due to heating, can be disadvantageous in that it increases the tension in the optical fiber, which can lead to a change in

the optical properties of the fiber or promote earlier failure of the fiber. As optical fibers are used at higher and higher powers, dissipation of heat becomes of concern, as is also explained in Applicant's specification.

Although Olson apparently teaches a groove, the groove is *not comprised by an inwardly facing surface*. See Olson at column 3, lines 29 - 38:

FIGS. 2 and 3 are perspective views of one embodiment of the Bragg grating package 100 constructed in accordance with the present invention. The package includes a retaining element 112 that holds the fiber grating 114 in a helical groove 117, better seen in FIG. 2a, located on the outer surface of the retaining element. In the embodiment depicted in FIG. 2, the retaining element is formed as a ring or cylinder that has an *outer circumferential surface* 122 in which the helical groove is inscribed. Of course, one of ordinary skill in the art will appreciate that the retaining element need not be cylindrical in shape. For example, the retaining element may have a cross-section that is elliptical or some other non-circular shape. Preferably, however, the retaining element is devoid of sharp corners and is provided with a generally *convex outer surface in which, the helical groove may be inscribed*. (Emphasis added).

Thus, it is respectfully submitted, Olson teaches no more than what is acknowledged by the Applicant to be the conventional technique known in the art.

Furthermore, it is respectfully submitted that one of ordinary skill would find little reason to combine White and Olson to any beneficial effect, even if, assuming for purposes or argument only, a reference (Olson) that teaches inscribing a groove on an outer surface could be said to suggest to one of ordinary skill in the art to inscribe a groove on an inner surface of White. What purpose would a helical groove serve to the random jumble of fiber optic cables of White?

The invention as recited in claim 1, in comparison, can provide, in certain circumstances beneficial advantages. For example, as a natural tendency of a coil of fiber is to spring apart, this tendency promotes reception of the loops of fiber by helical groove. Further, heat dissipation by the fiber tends to cause the body to expand outwardly, decreasing, rather than increasing, tension on the fiber, as would be the case with the prior art technique of winding the fiber about a rod or mandrel. See Applicant's published application at paragraph 49. Reconsideration and withdrawal of the rejection of claim 1 is respectfully requested.

Claims 2 - 7 and 9 - 12 depend from claim 1 and are deemed to present allowable subject matter at least for the reasons noted above in conjunction with claim 1. Reconsideration and withdrawal of the rejections of claims 2 - 7 and 9 - 12 is respectfully requested.

### Claim 38

Independent Claim 38 is rejected as anticipated under 35 USC § 102(b) by US 6,944,387 to Howell et al. (“Howell”). A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.

Claim 38 is a method claim that recites, in addition to other limitations, the steps of “providing first and second bodies mated together, the mated bodies defining at least one *passage* bounded at least in part by the first and second bodies” and “disposing a length of the optical fiber into at least one loop within the at least one passage *while providing relative movement between the first and second bodies.*”

The Office Action cites the abstract Howell, and in additional, reference numerals 90, 91, 92 and 110 of Figure 1, as anticipating claim 38. However, the Office action identifies no passage and no step of disposing a length of optical fiber into at least one loop within the passage *while providing relative movement between the first and second bodies.*

Not only must a reference teach each and every element as set forth in a claim to anticipate the claims, for Anticipation “the *identical* invention must be shown *in as complete detail as is contained in the ... claim.*” See MPEP §2131, citing Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989) (emphasis added). Howell does not teach or suggest the invention as recited in claim 38 in any detail whatsoever, let alone in as much detail as the claim. With regard to the reference numerals cited by the Office Action, reference numerals 91 and 92 refer to “storage or wrap” spools about which fiber optic cable may presumably be wrapped. (Howell, column 4, lines 28 -31). Reference number 110 is described by Howell as a “splice housing” which “may be pivotally mounted to the tray framework 101.” (Howell at column 4, lines 21- 24).

Assuming only for purpose of argument that the Office Action somehow considers splice housing 110 to be able to move in some way relevant to claim 38, at most the splice housing 110 appears to act as a cover that when opened out of the plane of Figure 1 of Howell allows access to the storage or wrap spools 91 and 92. Providing relative movement of the splice housing (i.e., opening and closing it) would make no sense while wrapping a fiber optical cable around the spools 91 and in any event likely impede wrapping fiber optic cable around the spools, as when the splice housing 100 is closed, access to the spools is blocked. Again, the foregoing assumption is made only for purposes of argument and no admission is made that any limitations

of claim 38 are in fact found in Howell. For example, by considering the movement of the splice housing 110 it is not considered that somehow the splice housing is a body that is “mated” with another body so as to define a “passage” within the meaning of claim 38.

Accordingly, it is respectfully submitted that Howell fails to teach or suggest the invention as recited in claim 38. Reconsideration and withdrawal of the rejection of claim 38, and claims 39 - 41 dependent therefrom, is respectfully requested. Claim 41 is further rejected as obvious over Howell in view of Olson. However, it is respectfully submitted that Olson fails to remedy the above identified defect of Howell.

#### **Objection to Claims 6 and 18**

Claims 6 and 18 are amended to incorporate subject matter of base and intervening claims and hence deemed allowable. Reconsideration and withdrawal of the objections to claims 6 and 18 is respectfully requested.

Reply herein to other contentions presented in the outstanding Office Action in relation to the rejections or objections of pending claims is moot in light of Applicant’s demonstration that the references fail to teach a limitation of all the claims, and accordingly any such matters need not be addressed herein. However, Applicant makes no admission whatsoever by virtue of not addressing these contentions, and reserve the right to raise any challenges in the future.

#### **Information Disclosure Statement**

Submitted herewith is a Second Information Disclosure Statement (IDS). It is respectfully requested that the Examiner initial the form PTO/SB/08a and return the initialed form with the next communication from the PTO.

#### **Electronic Payment of Fees**

Fees associated with this filing (Three Month Extension of Time fee of \$525 and IDS fee of \$180) are being paid electronically. No other fees are considered to be due. However, if it is determined that an additional fee is due, or that an overpayment has been made, please debit or credit, as appropriate, Deposit Order Account 502343.

**CONCLUSION**

This Response is considered to address all matters raised by the Examiner in the outstanding Office Action bearing a Notification Date of 06/15/2007. Applicant respectfully submits that the claims patentably distinguish over the art relied upon. Reconsideration and withdrawal of all rejections and objections is respectfully requested.

Please do not hesitate to contact the undersigned if any issues are deemed to remain unresolved.

Dated: December 17, 2007

Respectfully submitted,

By /Peter J. Rainville/  
Peter J. Rainville, Registration No.: 41,263  
Nufem  
7 Airport Park Road  
East Granby, CT 06026  
860-408-5022  
prainville@nufem.com